

REMARKS/ARGUMENTS

Reconsideration of this application in light of the above amendments and following comments is courteously solicited.

The Examiner rejected all of the previously submitted claims either under 35 U.S.C. 102 over German Publication 3803553 or under 35 U.S.C. 103 over the German Publication '553 in view of Wave-High Acceleration Linear PM Motor article.

It should be noted that the corresponding European application was rejected over the same prior art references. The claims in the European application were amended so as to distinguish over the prior art. The European application was granted in 2007 as a European patent with the amended claims.

Applicant by the instant amendment presents, in U.S. format, a new set of claims corresponding to the claims as allowed in the corresponding European case.

It is respectfully submitted that claims 33-43 as presented herein patentably define over the German Publication '553 in view of the Wave-High Acceleration Linear PM Motor article (hereinafter Wave publication) for the reasons set forth hereinbelow.

The German Publication '553 discloses a method and a device for cutting to length of an endlessly longitudinally or helically wounded tube. Over a mechanical scanning device after having determined the length, the cutting of the tubes is carried out. This has nothing to do with the present invention.

The Wave publication discloses a magnetic driven linear motor which is guided with corresponding lateral linear guides and has corresponding loads and speeds.

The person skilled in the art, with the knowledge of such a prior art, would never think to use such a linear motor for very large extrusion installations with very much complex and highly

developed cutting mechanisms, since the described strokes and the speeds there as well as accelerations and maximum permitted loads are very small.

Such described magnetic linear transport systems are for example for small robots and are possibly usable and applicable in the area of self-managed technics, but not for really huge extrusion installations with cutting mechanisms.

The person skilled in the art would never think about that, since the technical values mentioned in the Wave publication would never suffice to be applied in such an extrusion installation.

The person skilled in the art would have had no reason to take the Wave publication technology into account, since this technology would have been unsuitable because of its limited general conditions. Because of these limited conditions it would have been unsuitable to replace a common mechanical, huge and heavy cutting mechanism with very high acceleration values as drive.

The applicant had the challenge to develop an extrusion installation with a cutting mechanism with very high strokes of for example 300 strokes per minute up to approximately 600 strokes per minute, in order to manufacture tubes out of the continuous extrusion process very quick and very exact with high synchronized control and cutting precision of ± 0.2 mm.

Thereby overturning shall be reduced and a synchronization of the cutting mechanism to the moved tubes to be cut shall be substantially improved.

The present invention achieves this object by having a carriage 6 with a mounted cutting device 5 which is formed as a linear motor and is movable with respect to a base 7.

Thus it is assured that the extremely heavy cutting

mechanisms of extrusion installations can be very quickly accelerated and slowed down, the overturning can be reduced and at the same time a precise synchronization of the movement of the tube to be cut is possible to achieve a very precise cut and a very precise cutting length of the cut tube.

This is an essential advantage which is not at all taught in the known state of the art.

Since the cutting mechanism has a very high weight in such a large installation the weight of the motor may be significantly reduced through this master-slave arrangement, whereas no additional cable or the like have to be moved as well.

Thereby a plurality of permanent magnets with particular light weight and high power output on the bottom side sit in the carriage which serves as the receiver for the cutting mechanism. The permanent magnets interact with a coil, which is the stationary part.

Only in this way the very high mass and the very high speeds and in particular the speeds of the carriage may be exactly synchronized to the production speed to guarantee an exact and precise cutting during the extrusion of the tube.

Newly presented independent claim 33 sets forth with specificity the details of the extrusion installation which accomplishes the foregoing features not considered in the prior art. As previously noted, independent claim 33 as presented herein corresponds to the allowed independent claim in the corresponding European application which was allowed over the same prior art applied by the Examiner in the instant application. There is nothing in the sum total teachings of the prior art which recognizes the problem which the instant invention overcomes nor is there anything to suggest the

specific structure of the extrusion installation for accomplishing same. Accordingly, it is respectfully submitted that all of the claims as pending herein patentably define over the art of record and the early issuance of a formal notice of allowance is respectfully requested.

An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 02-0184.

Respectfully submitted,

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